AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-10. (canceled)

11. (new) A method of making a semiconductor device having a substrate with a pattern of highly doped regions and lightly doped regions between the highly doped regions, the method comprising the steps of:

applying a substantially continuous layer of doping material to the substrate;

creating the highly doped regions and the lightly doped regions in the substrate by diffusing dopant atoms from the doping material into the substrate;

providing conducting contacts above the highly doped regions; and

before the diffusing step, imprinting a diffusion barrier material on the substrate substantially exclusively in the regions that are to be the lightly doped regions.

12. (new) The method of claim 11, wherein the imprinting step is before the step of applying the layer of doping material.

13. (new) The method of claim 11, wherein the imprinting step is after the step of applying the layer of doping material.

14. (new) The method of claim 11, wherein the diffusion barrier material is a dielectric material in paste form and, after the imprinting step, further comprising the step of sintering the dielectric material.

15. (new) The method of claim 11, further comprising the step of adding a dopant to the diffusion barrier material.

16. (new) The method of claim 11, further comprising the steps of adding an etchant to the diffusion barrier material, and etching the substrate adjacent to the diffusion barrier material.

17. (new) The method of claim 11, wherein the highly doped regions have a surface resistance of 10 to 60 ohms per square and the regions between the highly doped regions have a surface resistance of 30 to 500 ohms per square.

18. (new) The method of claim 17, wherein the highly doped regions having a dopant concentration of 10^{18} cm^{-3} to 10^{21} cm^{-3} and a diffusion depth of 0.1 μm to 0.5 μm, and wherein the regions between the highly doped regions having a dopant concentration of 10^{17} cm^{-3} to 10^{21} cm^{-3} and a diffusion depth of 0.1 μm to 0.5 μm.

19. (new) The method of claim 11, wherein the diffusing step is carried out at approximately 900°C.

20. (new) A method of making a semiconductor device having a substrate with a pattern of highly doped regions and lightly doped regions between the highly doped regions, the method comprising the steps of:

imprinting a diffusion barrier material on the substrate substantially exclusively in the regions that are to be the lightly doped regions, the diffusion barrier material being a dielectric material in paste form;

sintering the diffusion barrier material;

applying a substantially continuous layer of doping material to the substrate and the sintered diffusion barrier material;

creating the highly doped regions and the lightly doped regions by diffusing dopant atoms from the doping material into the substrate; and

providing conducting contacts on the layer of doping material above the highly doped regions.

21. (new) The method of claim 20, wherein the sintering step is carried out at 200° to 1000°C.

22. (new) The method of claim 20, wherein the diffusing step is carried out at approximately 1000°C.

23. (new) A method of making a semiconductor device having a substrate with a pattern of highly doped regions and lightly doped regions between the highly doped regions, the method comprising the steps of:

applying a substantially continuous layer of doping material to the substrate;

imprinting a diffusion barrier material on the layer of doping material substantially exclusively in the regions that are to be the lightly doped regions, the diffusion barrier material being a dielectric material in paste form having an etching agent therein;

creating the highly doped regions and the lightly doped regions by diffusing dopant atoms from the doping material into the substrate and, during this diffusing step, etching the substrate in the lightly doped regions; and

providing conducting contacts on the layer of doping material above the highly doped regions.